

24/7 Connectedness to Technology: Impact on Health and Well-Being



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Technology's Impact across the Lifespan

How does technology change us as human beings???

- Skimming, scanning, scrolling all related to hyper attention; loss of ability to focus, absorb information, deep thought, “deep reading”
(Maryanne Wolf, Tufts University, cognitive neuroscientist)
 - Multi-tasking shows **poor performance** in all areas; does *not* promote learning
 - Replaces conversation; constant interruption supplants achievement
 - “Zero tolerance” for making mistakes
- *Average of 6 hours/day screen time for US citizens*



Technology Connectivity

How does technology change us as growing youth and adults???

- Overwhelmed across generations
- Americans increasingly isolated and anxious (Gusterson, Hugh and Besteman, Catherine, 2009. *The Insecure American: How we got here and what we should do about it*)
- Higher incidence of anxiety and depression in youth as significant risk factor
 - Adults are no longer the buffer for youth against the world.
 - Expecting more from technology and less from each other.*

**Sherry Turkle, licensed clinical psychologist, MIT expert in social and psychological effects of technology on youth for 30 years*



The Research: Anxiety and Depression in Teens

- *The Atlantic*, September 2017, “*Have Smartphones Destroyed a Generation?*”
Jean Twenge, “Today’s teens are physically safer than previous generations, yet more likely to be on their phone, in their room, alone, and often distressed.”
- (2017) *New York Times*, “*Are Teens Replacing Drugs with Smartphones?*”
Ten year study, decreased ATOD among teens
- Many research studies show negative impacts of heavy use of smartphones and social media on self-esteem, impulsivity, empathy, self-image, sleep, anxiety, stress, and depression.



National Institute of Health MRI Study



<https://www.youtube.com/watch?v=7RY3gSdKRn0>



Neurophysiological Effects (Brain)

- Rewiring of brains with use of any electronic device
- “Use it or lose it” brain functions; plasticity of brain
- Sleep disruptions (blue screen emissions): decreased melatonin levels (hormone induced in normal sleep cycles)

(Carr, Nicholas, 2010. *The Shallows: What the Internet is Doing to our Brains*)



Neurophysiological Effects (continued)

- Dopamine levels (mesolimbic pathway connected to nucleus accumbens) soar with “pings” and sounds of stimulation, connectedness to others; same part of brain related to use of substances (reward center)
- More intense for teenagers due to hormones



“Your phone is trying to control your life.”



<https://www.youtube.com/watch?v=MacJ4p0vITM>

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24/7 Connectedness: Considerations for Change

- We need to put technology in its place and have it work for our purposes (not the other way around).
 - Creation of WMDs (Wireless Mobile Devices) from which we can disengage
- We can shape technology in ways that honors the values and life beliefs we hold dear.
 - Device-free spaces and times in our families and lives
 - Commitment to conversation

Men have become the tools of their tools. Henry David Thoreau

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24/7 Connectedness: Considerations for Change

- *What really matters in our lives? What do we care about? What do we believe is worth protecting?*

❖ **Solitude**

❖ **Living mindfully**

❖ **Being in relationship, conversation with others**

Man's curiosity, his relentlessness, his inventiveness, his ingenuity have led him into deep trouble. We can only hope that these same traits will enable him to claw his way out. E. B. White

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American Academy of Pediatrics, 2016 Guidelines

- **Limit screen time** for all electronic devices.
- **Turn screens off before bed** so as not to disrupt sleep patterns.
- Discourage use of media during homework; multitasking interferes with performance.
- Have **media-free times and places** (i.e. unplugged time) for ALL family members.
- Monitor usage of technology by youth and keep lines of communication open about online bullying, sexting, etc.

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American Academy of Pediatrics, 2016 Guidelines

“...as long as they put down their devices long enough to sleep, exercise, eat, converse, and engage in rich offline lives.”

- Under age 2, no screens, except for video chatting in order to help build relationships
- One hour limit/day w/ “high-quality programming” for ages 2-5
- Use of an online planning tool for media limits for older youth



Being in Relationship with Others

Empathy: *understanding, compassion, responsiveness, identification, fellow feeling (ant. Indifference)*

- ❖ Allows for spontaneity, being fully present, vulnerability, making mistakes, open-ended dialogue and conversations, turn-taking
 - *Daughter and Dad video clip*

- ❖ Necessitates increased eye contact, listening, and attentiveness (*versus phubbing, eye contact while texting or talking on phone!*)
 - 40% decrease of empathy (face-to-face contact) in college students since 1990's

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